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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/923,272

08/03/2001

E. Wendell Diller

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2496

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7590

05/19/2006

VIDAS, ARRETT & STEINKRAUS, P.A.  
6109 BLUE CIRCLE DRIVE  
SUITE 2000  
MINNETONKA, MN 55343-9185

EXAMINER

CLEMENT, MICHELLE RENEE

ART UNIT

PAPER NUMBER

3641

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/923,272	DILLER, E. WENDELL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michelle (Shelley) Clement	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) 4,7,10,13,16 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8,9,12,14,15,17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 3/8/06 have been fully considered but they are not persuasive. In regards to applicant's contention that every member of the Markush group of claim 23 is supported by the specification as filed, this is not persuasive in that applicant has merely pointed out support for the members for the group including "light-weight metal", "plastic", and "fiberglass". However, the specification as originally filed lacks, and which applicant currently fails to clarify, support in the specification for the member of the group including "any combination thereof". For example, the specification does not disclose nor even suggest a section of the barrel constructed of a combination of "light-weight metal and plastic".
2. In response the applicant's contention that the specification provides enablement for HOW the vents are constructed and arranged to minimize sound report, it is noted that merely stating that "[t]he positioning of the vents 30 along the length of the elongated vented gun barrel 10 preferably minimize report of the firearm 12 following discharge" does not in and of itself enable one of ordinary skill in the art to make, or position, the vents without undue experimentation. Applicant argues that the vents cited in the previous actions (which read on applicant's claimed structure) do not achieve the desired "constructed and arranged to minimize sound report", if this is the case whereby the something more than the claimed structure is required to achieve the desired claimed result, applicant has not disclosed HOW this desired claimed result is achieved.
3. In response to applicant's argument that Schumacher includes additional structure not required by applicant's invention (i.e. more than one barrel), it must be noted that Schumacher

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discloses the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant in that applicant has not claimed the current firearm using a closed statement such as “consisting of”. With regards to applicant’s contention that the vents of Schumacher do not vent the gases directly to the surrounding atmosphere, it is noted that the vents of Schumacher are open directly to atmosphere, in that both barrels are open to atmosphere so the air in the barrels is atmospheric air. Applicant’s arguments do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant is merely arguing a desired result and has not shown how **the structure** of the present application differs from that of the prior art. Furthermore applicant’s arguments raise issues as to enablement of the present application, since Schumacher discloses the same device as applicant **claims**, it is not clear how the device of Schumacher cannot have the same desired result as the present application. Since applicant has not disclosed any further structure or configuration in which the “vents are constructed and arranged to minimize sound report”, it is not clear what such configuration would meet such a limitation. Furthermore applicant’s declarations specimens all state that such vents increase the sound report, one of ordinary skill in the art would not know how to construct and arrange the vents in order to minimize sound report without undue experimentation and applicant has not disclosed how to construct and arrange them in a manner other than that disclosed by Renner in order to obtain the desired result.

### ***Specification***

4. The amendment filed 8/12/05 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new

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matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The barrel formed of *any combination of* light-weight metal, plastic, or fiberglass was not described in the specification at the time the application was filed.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-3, 5, 6, 8, 9, 12, 14, 15, 17, 19-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a firearm comprising a barrel having a breach end and a muzzle end and a plurality of vents having a size less than ½ inch in diameter and initiating beyond twelve inches from the breach end, does not reasonably provide enablement for how the vents are constructed and arranged to minimize sound report. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. It is not clear to the examiner *how* the vents are constructed and arranged to achieve the desired affect and applicant's arguments and affidavits showing that devices having the disclosed structure increase sound report make it unclear how one of ordinary skill in the art would achieve such a desired affect without undue experimentation.

7. Claims 1-3, 5, 6, 8, 9, 12, 14, 15, 17, 19-23 rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. **How** the vents are constructed and arranged so that they minimize sound report is critical or essential to the practice of the invention, but not

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included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicant's specification merely states that the "vents preferably have a size which is less than one-half inch in diameter where the vents are constructed and arranged to minimize report of the firearm" (p. 2, lines 7-9); "One or more vents or ports preferably traverse the elongate vented gun barrel to facilitate the controlled expulsion of high-pressure gasses which occur following the discharge of the firearm. The vents or ports are preferably positioned along the length of the elongate vented gun barrel initiating beyond twelve inches or 30.48 centimeters from the breach end and terminating proximate to the muzzle end. Each of the vents preferably has a size dimension of less than ½ inch or 1.27 centimeters in diameter or smaller. The positioning of the vents along the length of the elongated vented gun barrel preferably minimize report of the firearm following discharge" (p. 5, lines 1-10). Renner discloses a barrel having vents or ports positioned along the length of the barrel, the vents initiating beyond twelve inches from the breach end, the vents having a dimension of less than ½ inch. Applicant argues that the device of Renner merely disperses sound (which according to applicant is not the same as applicant's claimed desired result of minimizing sound report) and applicant further argues that the device of Renner will "result in greater "annoyance (noise)" (applicant's arguments p. 6, filed 8/12/05). It is not clear to the examiner how a device identical to the device disclosed and claimed can have a different result unless applicant has not disclosed an essential or critical element to practice the invention.

8. Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that

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the inventor(s), at the time the application was filed, had possession of the claimed invention.

The barrel formed of *any combination* of light-weight metal, plastic, or fiberglass was not described in the specification at the time the application was filed.

9. Claims 1-3, 5, 6, 8, 9, 12, 14, 15, 17, and 19-23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the structure that achieves the desired claimed result of minimizing sound report (i.e., *how* “the vents [are] constructed and arranged to minimize sound report”).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3, 5, 6, 8, 9, 12, 14, 15, 17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumacher (US Patent # 5,315,914). Schumacher discloses a firearm having reduced muzzle noise, the firearm comprising an elongate barrel having a breach end and a muzzle end and a plurality of vents disposed through the elongate barrel, the vents being disposed toward the muzzle end of the barrel, the vents release gas directly to the surrounding atmosphere. The barrel is formed of barrel sections (i.e. the control section, the acceleration section, etc.) (column 1, lines 30-40). The sections are fixedly secured to each other and their lengths can be chosen to be defined as the same. Schumacher discloses that the vent size can be altered (column 3, lines 3-7), the vents can be of the same size, and can be grouped into at least

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one sector. The vents are for reducing sound report. Schumacher discloses the claimed invention, except for the vents explicitly having a size less than ½ inch diameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the vents having a size less than ½ inch, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. And Schumacher discloses that the vent size can be varied to change the affect of the gas pressure release. Schumacher discloses the claimed barrel except for expressly stating that the barrel has a length of less than 12 feet, or approximately seven feet and the vents initiating beyond twelve inches from the breech end. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the barrel any desired length, since such a modification would have involved a mere change in the size of a component and a change in size is generally recognized as being within the level of ordinary skill in the art and barrels of the length specified are well known in the art. *In re Rose* 105 USPQ 237 (CCPA 1955).

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Russell (US Patent # 6,668,699).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MICHELLE CLEMENT  
PRIMARY EXAMINER